Amendments to the Claims

Please amend Claims 1-13 to read as follows. Note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below.

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1. (Currently amended) A printing apparatus which uses a printing head provided with printing elements, differing ~~different~~ in ~~a size~~ sizes of ~~dot~~ dots formed by said printing elements, to perform printing on a printing medium, said apparatus comprising:

data producing means for producing printing data corresponding to each of the printing elements ~~of the printing head, different in the size of dot formed,~~ under a predetermined condition, the printing elements differing in the sizes of dots to be formed; and

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conversion means for converting the printing data produced by said data producing means into dot data for ~~forming and disposing a dot in a pixel~~ distributing a dot to a pixel, said conversion means executing the conversion independently for and correspondingly to each of the different sizes of dots.

2. (Currently amended) A printing apparatus as claimed in claim 1, wherein the predetermined condition for producing the printing data is a condition that a change in density of an image, which is printed with dots formed based on the printing

data corresponding to each of the printing elements ~~different~~ differing in the ~~size~~ sizes of ~~dot~~ dots formed, is linear.

3. (Currently amended) A printing apparatus as claimed in claim 2, wherein ~~the dot data obtained thorough the conversion by said conversion means is what causes the larger size of dot to be disposed correspondingly to the density of an intermediate or less in a density range expressed with dots formed based on the dot data~~ said conversion means converts the printing data into the dot data that applies a large size of dot in a density range equal to or less than an intermediate value of an expressible density range.

4. (Currently amended) A printing apparatus as claimed in claim 3, wherein the printing elements include ~~an~~ ink ejection ~~opening~~ openings for ejecting ink.

5. (Currently amended) A printing apparatus as claimed in claim 4, wherein the printing head arranges the ejection openings ~~ejecting~~ that eject ink of a same color and different ejection amount in parallel and in a scanning direction of the printing head, and is used for forming the dots ~~different~~ differing in size by means of the ejection openings ejecting ink ~~different~~ differing in ejection ~~amount~~ amounts.

6. (Currently amended) A printing apparatus as claimed in claim 4, wherein the printing head arranges the ejection openings ~~ejecting~~ that eject ink of a same

color and different ejection amount alternately in a direction perpendicular to a scanning direction of the printing head, and is used for forming the dots ~~different~~ differing in size by means of the ejection openings ejecting ink ~~different~~ differing in ejection ~~amount~~ amounts.

7. (Currently amended) A printing apparatus as claimed in claim 5, wherein the printing head arranges a group of the ejection openings of a plurality of ink colors and ~~other~~ another group of the ejection ~~opening group~~ openings of the plurality of ink colors symmetrically with respect to an axis perpendicular to the scanning direction.

8. (Currently amended) A printing apparatus as claimed in claim 4, further comprising a plurality of print buffers, corresponding to respective inks of different ~~ejected amount~~ ejection amounts and of a same color, for storing the dot data selectively in the plurality of buffers so as to eject ink from the corresponding ejection ~~opening~~ openings.

9. (Currently amended) A method of producing printing data used in a printing apparatus which uses a printing head provided with printing elements, differing ~~different~~ in ~~a size~~ sizes of ~~dot~~ dots formed by said printing elements, to perform printing on a printing medium, said method comprising the steps of:

producing printing data corresponding to each of the printing elements ~~of the printing head, different in the size of dot formed,~~ under a predetermined condition, the printing elements differing in the sizes of dots to be formed; and

converting the printing data produced by said data producing step into dot data for ~~forming and disposing a dot in a pixel~~ distributing a dot to a pixel, said converting step executing the conversion independently for and correspondingly to each of the different sizes of dots.

10. (Currently amended) A method as claimed in claim 9, wherein the predetermined condition for producing the printing data is a condition that a change in density of an image, which is printed with dots formed based on the printing data corresponding to each of the printing elements ~~different~~ differing in the ~~size~~ sizes of ~~dot~~ dots formed, is linear.

11. (Currently amended) A method as claimed in claim 10, wherein ~~the dot data obtained thorough the conversion by said converting step is what causes the larger size of dot to be disposed correspondingly to the density of an intermediate or less in a density range expressed with dots formed based on the dot data~~ said converting step converts the printing data into the dot data that applies a large size of dot in a density range equal to or less than an intermediate value of an expressible density range.

12. (Currently amended) A method as claimed in claim 11, wherein the printing elements include ~~an~~ ink ejection ~~opening~~ openings for ejecting ink.

13. (Currently amended) A program for causing an information processing apparatus to execute a printing data producing process, which produces printing data used in a printing apparatus which uses a printing head provided with printing elements, differing ~~different~~ in ~~a size~~ sizes of ~~dot~~ dots formed by said printing elements, to perform printing on a printing medium, said printing data producing process comprising the steps of:

producing printing data corresponding to each of the printing elements ~~of the printing head, different in the size of dot formed,~~ under a predetermined condition, the printing elements differing in the sizes of dots to be formed; and

converting the printing data produced by said data producing step into dot data for ~~forming and disposing a dot in~~ distributing a dot to a pixel, said converting step executing the conversion independently for and correspondingly to each of the different sizes of dots.